

Message Text

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ACTION OES-07

INFO OCT-01 ISO-00 SOE-02 AID-05 CEA-01 CIAE-00
COME-00 DODE-00 EB-08 H-01 INR-10 INT-05 L-03
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STR-07 TRSE-00 ACDA-12 AF-10 ARA-10 EA-10 EUR-12
NEA-11 IO-13 /167 W

-----034194 121941Z /42

R 121816Z JUN 78

FM AMEMBASSY BONN

TO USDOE WASHDC

INFO SECSTATE WASHDC 9322

AMEMBASSY PARIS

AMEMBASSY BRUSSELS

AMEMBASSY ROME

AMEMBASSY CAIRO

AMCONSUL MILAN

AMCONSUL GENOA

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E.O. 11652: N/A

TAGS: ENRG, TECH, GW

SUBJECT: REPORT BY INTERNATIONAL SOLAR ENERGY WORKING
GROUP

PART 1

1. FOLLOWING HIGHLIGHTS INPUT PANEL 6 DPR, BASED ON
25 INTERVIEWS FRANCE.

A. FRENCH FLAT PLATE AND CONCENTRATING SOLAR THERMAL
1978 PRODUCTION ESTIMATE ONE MILLION SQ. FEET, RISING
TO THREE MILLION 1979. ROUGHLY HALF FOR EXPORT (ALMOST
ALL TO OTHER MEDITERRANEAN COUNTRIES).

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B. 28 MARCH 78 GOF ANNOUNCED HOT WATER MARKET SUPPORT
BY GIVING CHECKS FOR FRANCS 1,000 TO PURCHASERS H/W
SYSTEMS AVERAGING 5 TO 6,000 FRANCS (FOUR ROOMS OR TWO
SQ. METERS MINIMUM COLLECTOR SIZE). FOR DISTRICT H/W,
GOF PAYS 1/500 SURFACE AREA (FRANCS 10,000 FOR 20 SQ.
METER ARRAY). TOTAL GOF FUNDING FRANCS TEN MILLION FOR
6,000 SYSTEMS. CHECKS NOW IN MAIL TO BUYERS AND

BUILDING TRADES SAY PROGRAM SUCCESSFUL.

C. ALL INTERVIEWED AGREE SOLAR H/W MARKET FRANCE WILL REMAIN FAIRLY SMALL NEXT FEW YEARS, AND SPACE HEATING CONFINED TO LIMITED MARKET SOUTH OF LOIRE.

D. BY CONTRAST PHOTOVOLTAIC POTENTIAL GREATER, 90 PERCENT OF WHICH TO GO TO OVERSEAS MARKET. (ALL SOLAR MARKETS IN FRANCE AND OVERSEAS SEEN AS GOVERNMENT SUSTAINED. EITHER DIRECTLY OR GIFTS TO FOREIGN (USUALLY AFRICAN) GOVERNMENTS. HENCE FRENCH PHOTOVOLTAIC MFGR (RTC) RELUCTANT TAKE RISK INCREASE PRODUCTION BECAUSE MARKET STILL ESSENTIALLY POLITICAL, HENCE UNSUITABLE. BUT AGREED BY MOST THAT WILL TAKE OFF ("EXPLODE") CIRCA 1983).

E. GENERAL OPINION IS THAT LDC MARKET POTENTIALLY COLOSSAL, COULD EASILY SURPASS US - (WHICH NOW CONSUMES 80 PERCENT OF WORLD SOLAR PRODUCTION). BUT LDC MARKET WILL NOT GROW EXCEPT AS FUNCTION OF STIMULATION BY INTERNATIONAL ORGANS OR USG. GOF NOT EXPECTED TO GIVE ENOUGH FUNDS TO LDC'S TO MAKE THAT MARKET COME EVEN CLOSE TO MATCHING LDC ENERGY NEEDS. EVEN FRENCH MARKET "SUFFERS" FROM SUCH FACTORS AS STRICT FRENCH INSULATION CODES (R-30 TO 40) FOR ALL-ELECTRIC HOUSES (30 PERCENT OF NEW CONSTRUCTION AND SPATE OF SOLAR DESIGNS REQUIRED LIMITED OFFICIAL USE

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FOR GOVERNMENT BUILDINGS (WHICH GIVES MUCH WORK TO RAPIDLY INCREASING SOLAR DESIGN FIRMS, BUT MAKES CONSUMER LIKELY TO WAIT FOR BETTER SOLAR ECONOMICS).

F. FRENCH PHOTOVOLTAIC PRODUCTION NOW AT CAPACITY AND UNLIKELY MORE THAN DOUBLE NEXT YEAR. FACTORY AT CAEN (NORMANDY) OF RADIO-TECHNIQUE COMPELEC IS SOLE PRODUCER NOW. RTC CLAIM 1978 PRODUCTION 200 KW BUT OTHERS PUT TOTAL FRENCH PRODUCTION AS LITTLE AS 100 KW PLUS SMALL SOLAREX AND MOTOROLA IMPORTS. MOST OF FRENCH PV PRODUCTION AND IMPORTS DESTINED FOR AFRICAN, MID-EASTERN CONSUMERS.

G. FRENCH TV SOLAR EXPERT GEORGES LECLERE (AUTHOR "LA PRATIQUE DE L'ENERGIE SOLAIRE" ON BOOKSTANDS SINCE 5 JUNE) TOLD US PRIVATELY THAT FRENCH OFFICIAL PROJECTION NUCLEAR GENERATED ELECTRICITY FRANCS 0-11/KW IN FACT WILL COST CONSUMERS 0.33 (COMPARED TO 0.12 TO 0.66 INDUSTRIAL TO RESIDENTIAL RATES). THUS INTERNAL FRENCH SOLAR MARKET NEEDS ONLY LOWER PV AND FPC/CONCR COLL PRICES TO COMPETE WITHOUT GOVERNMENT SUBSIDIES. GENERAL AGREEMENT THAT FRANCE NOW IN PRE-

INDUSTRIAL STAGE, WILL MOVE INTO SERIOUS SOLAR STAGE
WITHIN FIVE YEARS.

H. SOLAREX PLANS PRODUCE CELLS 1979 IN FRANCE WITH
LEROY-SOMER, PARENT OF POMPES GUINARD, MAINLY FOR WATER

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R 121816Z JUN 78
FM AMEMBASSY BONN
TO USDOE WASHDC
INFO SECSTATE WASHDC 9323
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PUMPING FRANCE AND LDC'S. MOTOROLA PLANS SHIP CELLS
PHOENIX, ARIZONA TO TOULOUSE FOR ENCAPSULATION HERE.
BEGINNING SEPTEMBER ELF PLANS START SOLAR CELL PRODUC-
TION 1981 (PLUS OTHER COMPONENTS), MEANWHILE DESIGNS
AND BUILDS SYSTEMS USING SOLAREX BUT PREFERABLY MORE
EXPENSIVE (\$20 VERSUS \$10) RTC PRODUCT ("BUY FRENCH",
ALSO MORE DURABLE).

I. MOST COMPANIES CLAIM HAVE MADE NO MARKET SURVEYS
OR AT BEST CURSORY ONES. FRENCH MARKET NOW BEING
MORE STRICTLY ANALYZED BUT RESULTS NOT EXPECTED SOON.

LDC MARKET ASSESSMENTS NOT MADE BECAUSE "TOO MANY VARIABLES". ALL CONCERNING HOW TO FIND FUNDING. THE LIMITED OFFICIAL USE

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"NEED", HOWEVER, FAR EXCEEDS CAPACITY NOW.

J. ELF PLANS BUILD SOLAR H/W SYSTEMS USING THEIR OWN OR OTHERS' PANELS (NOT YET DECIDED), AND PROJECT 1,000 ELF H/W HOUSES/YR BY 1981/82. HOWEVER, SLOW MOTION AS ELF SOLAR GROUP TEN PEOPLE, COST CENTERED, SMALL BUDGET.

K. SAINT GOBAIN SOLAIRE JUST STARTING UP PRODUCTION FPC INTEGRAL ROOF PANELS FOR H/W AND SHACOB. NOW IN PROTOTYPE STAGE, AND SINCE PAST R&D STAGE HAVE BEEN COST CENTERED AND TOLD TO STAND ON OWN FEET. ST. GOBAIN SOLAIRE SMALL GROUP, PLAN TO EXPORT HARDWARE AND/OR LICENSE THROUGH REPS/MFGRS IRAN, MOROCCO, SAUDI, KUWAIT, AFRICA, JAPAN, BRAZIL. WORK WITH THEIR SUBSIDIARY CERTAIN-TEED IN U.S. MAY ALSO MAKE PV CELLS. THEY CLAIM NO POSSIBILITY FRENCH SOLAR MARKET COULD OUTSTRIP CAPACITY. GIVEN ANNUAL SOLAR GLASS DEMAND - 2,000 SQ METERS/DAY - REPRESENTS ONLY TWO PERCENT ST. GOBAIN'S CAPACITY. INCIDENTALLY, RTC USES ST. GOBAIN LOW IRON TEMPERED GLASS SANDWICH FOR ITS CELLS, WITH HITEMP RUBBER GASKET.

L. FRACTION FRENCH ENERGY MARKET SUITABLE FOR SOLAR. NOT DEFINED BY ANY SOURCES AND PER COLLI'S AIDE PIERRE BOUJEAND PRODUCTION AND PROJECTION NOT RELIABLE. HIS BEST ESTIMATE IS THAT H/W AND SPACE HEATING (THE ONLY REAL INTERNAL MARKET) IS 30 PERCENT OF TOTAL LOAD. BY 1985 WILL BE BETWEEN 500,000 AND 1,000,000 INSTALLATIONS, AVERAGING 0.4 TONS OIL/YR FOR H/W X .40 AND 2.0 TONS YEAR FOR HEATING X .55.

M. FRENCH SOLAR COMPANIES (100 TO 130 FPC MFGRS OF LIMITED OFFICIAL USE

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WHICH 20 TO 30 SERIOUS AND ONLY 8 QUALIFIED FOR GOVERNMENT SUBSIDY AS OF 8 JUNE) RATHER LIKE U.S., RANGE FROM BACKYARDERS TO A FEW SERIOUS COMPANIES BUT ALMOST ALL SUFFER FROM LACK ADEQUATE COMMERCIALIZATION BUDGETS AND R&D FUNDS TOO SMALL. EXPORTS, VITAL TO FRENCH SOLAR INDUSTRY, SEEM SOMEWHAT HAPHAZARD OR PIGGYBACK ON OTHER ACTIVITIES. SO THERE STRONG INTEREST IN

KNOWING WHAT IS GOING ON IN U.S. AND JAPAN, IN ACQUIRING
U.S. TECHNOLOGY, IN LICENSE AGREEMENTS (BOTH DIRECTIONS),
AND IN BETTER CONTACTS GENERALLY.

N. ASKED IF U.S. STIMULATION OVERSEAS SOLAR BY LARGE
AID TYPE ACTIVITIES WOULD HELP FRENCH TO MARKET. GOT
MIXED REACTIONS RANGING FROM "BY ALL MEANS" TO "YOU
MAKE LOVE AND YOU CAN GET MEDICAL PROBLEMS". ON
BALANCE BELIEVE U.S. COMPANIES NOW MARKETING HERE
(SOLAREX, SUNWORKS, MOTOROLA, WESTINGHOUSE, FAFCO, ETC.)
ARE ON RIGHT TRACK AS THERE NO REAL REASON THEY CAN'T
PARTICIPATE (EVEN DESPITE "BUY FRENCH") IN SOLID SHARE
FRENCH DOMESTIC MARKET ESPECIALLY SELLING COMPONENTS
OR LICENSING TECHNOLOGY. IT ALSO GOOD SPRINGBOARD TO
LDC'S IN WHICH FRENCH COMPANIES HAVE INSIDE TRACK.

O. VERY LITTLE COMMERCIAL INTEREST WIND OR BIOMASS
CONVERSION FOR FRENCH DOMESTIC PURPOSES AND
SURPRISINGLY LITTLE GRASP OF BIOMASS POSSIBILITIES
LDC'S SUCH AS SUB-SAHARA AFRICA.

P. SIDEM, LARGEST FRENCH DESALINATION TURNKEY COMPANY,
PLANS TO GO SOLAR IF CAN FIND RIGHT PRICED EQUIPMENT,
BUT SO FAR NO PROGRESS AND THEIR SOLAR EXPERT ABOUT
TO QUIT.

Q. KEY MARKETS FOR P/V: WATER PUMPING (78 200-300 KW,
300 KW-79); LIGHTING; TELECOMMUNICATIONS ('79-'83 W.
AFRICA 800 KW ETV; TELEPHONES LIBYA, SAUDI ARABIA,
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ETC.); PORTABLE GENERATORS. TOTAL WORLD USE 1978

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R 121816Z JUN 78
FM AMEMBASSY BONN
TO USDOE WASHDC
INFO SECSTATE WASHDC 9324
AMEMBASSY PARIS
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C O R R E C T E D C O P Y (DRAFTING OFC (BONN) ADVISES CORRECT AS
ORIGINALLY TRANSMITTED)

700-1,000 KW. SHOULD DOUBLE EACH YEAR. REALISTIC
PANEL PRICES APPEAR TO BE: '78 - \$18-20/W; '79-\$12-16;
'85-\$6.

PART II

1. FURTHER TO REPORT NO. 1 AIRMAILED FROM PARIS 8
JUNE, DESPITE PAUCITY MARKET/PRODUCTION STATISTICS
AVAILABLE FROM FRENCH SOURCES, BELIEVE CAN OBTAIN ENOUGH
DATA TO FILL VOIDS FROM OTHER SOURCES. DOE CERTAINLY
AWARE OF FROST AND SULLIVAN 1978 REPORT NO. E251
(\$850,000), "SOLAR POWER MARKET IN WESTERN EUROPE",
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WHICH PROJECTS SOLAR HEATING IN 470,000 W. EUROPE
BUILDINGS BY 1990, AT WHICH TIME TOTAL THESE SALES 7.4
MILLION SQ. METERS \$2,300 MILLION.

2. ALSO NATO CCMS PILOT STUDY LEADERS MEETING ITALY
12-14 JULY 78 (DR. FRED MORSE IS CHAIRMAN) MAY BRING
TOGETHER MORE DATA.

3. ANOTHER EXCELLENT SOURCE PER EUROPE COMMON MARKET'S
DR. A. STRUB, IS GRAFTON HOLDINGS ENERGY UNIT (STOUR-
BRIDGE, WEST MIDLANDS, UK) WHICH HAS COMPLETED LATE
1977 EARLY 1978 EEC FULL SOLAR MARKET/SUPPLY APPRAISAL
ALL SECTORS NOW TO 1988. COST \$3,000 INCLUDING ACCESS
TO AND SPECIAL USE THEIR EXTENSIVE DATA BANK.

4. RECOMMEND DOE/IA OBTAIN FROST AND SULLIVAN STUDY (106 FULTON STREET, N.Y.C.), LEVY AND SPECIAL REQUIREMENTS ON DR. MORSE, AND AUTHORIZE DOYLE TRANSIT UK INSPECT AND NEGOTIATE LEAST COSTLY ACQUISITION DATA FROM GRAFTON. PLEASE REPLY US CONGEN MILAN.

5. EEC (STRUB AND DAVIS IN EG 17) PLAN INTRODUCE MARKET, TECHNICAL AND FEASIBILITY STUDIES AS PRE-CONDITION TO EEC FUNDING R&D OR DEMOS. STRUB CALLS LACK ADEQUATE MARKET STUDIES "EUROPEAN SICKNESS" AND RECALLS LOW QUALITY 1975 EEC SOLAR APPRAISALS.

6. SOME RANDOM NOTES ADDITIONAL TO OR AT VARIANCE WITH OUR REPORT NO. 1:

A. PER STRUB, WEST EUROPE TOTAL PV USE NOW CIRCA 100 KW. LR HAS CEASED PURCHASES RTC CELLS BECAUSE INSUFFICIENTLY DURABLE.
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B. EEC STILL HAS NO OTEC OR WIND PROGRAM. HAS ADDED AGRIC, AND INDUSTRIAL PROCESS HEAT TO NEXT CYCLE BUT EXPECT NATIONAL GOVERNMENTS TO FUND THEIR OWN PROJECTS IN THESE FIELDS. EEC NEXT SOLAR R&D BUDGET CYCLE REQUEST IS \$140 MILLION (DOUBLE THAT OF 1974-79) 1979-84. PROBABLY WILL BE TRIMMED SOMEWHAT. HOWEVER, COST SHARING BY NATIONAL GOVERNMENTS AND INDUSTRY AVERAGES 50 PERCENT SO LIKELY TOTAL AVAILABLE CIRCA \$250 MILLION R&D. U.S. CONTRACTORS PERMITTED AS SUBS TO EEC FIRMS IF CAN SHOW UNIQUE QUALIFICATIONS. IN ADDITION COUNCIL APPROVED 30 MAY 1978 SOLAR DEMONSTRATION CONCEPT AND \$330 MILLION REQUESTED FOR NEXT FIVE YEARS.

C. EEC R&D PROGRAMS STILL IN SIX GROUPS: SHACOB (MOSTLY HEATING), SMALL (UP TO 1 MW) AND LARGE POWER, PV (BIGGEST DOLLAR SHARE), PHOTO-CHEMISTRY (MAINLY HYDROGEN), BIOMASS, INSULATION AND RELATED METEO DATA.

D. FRANCO/BELGIAN GLASS MFGR. GLAVERBEL IS PRODUCING LOW IRON, FLEXIBLE, VERY THIN (ONE MM) GLASS FOR SOLAR-CAN BE SHIPPED IN ROLLS. MR. PURPLE MAY WISH EXPLORE FURTHER WITH AMEMBASSY COMMERCIAL ATTACHE.

E. MOTOROLA. WITH F. MILLERET, F. SANTAMARIA/MOTOROLA SEMICONDUCTOR S.A. PARIS. MOTOROLA TO MAKE DECISION TO PRODUCE CELLS, PANELS IN JULY 78 TO BEGIN IN SEPT. SEE MARKETS IN AFRICA IN ORDER OF IMPORTANCE (1) WATER PUMPING 1978 20-25 KW. GUINARD PUMPS, BRIAU 10-15 KW. SOFRETES 1-5 KW. TOTAL 30-45 KW. 1979 APPROX. 2X (2)

EDUCATION TV, GOLD COAST. 1979 3600 SCHOOLS AT 60 W
EACH 216,000 W. TOTAL 1979-83 13,000 SCHOOLS AT
60W EACH OR 1.36 MW. (3) TELEPHONE - MAJOR PROGRAM UNDER
CONSIDERATION IN SAUDI ARABIA AND LIBYA TO INSTALL
TELEPHONES EVERY 3KM ON HIGHWAYS IN 1980-1985. SOURCE
OF CELLS/PANELS NOT YET DECIDED. ASSEMBLY MAY BE DONE
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IN USER COUNTRIES. (4) PRIVATE PURCHASE OF 15,000 UNITS
OF 20-40 WATT PANELS FOR

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R 121816Z JUN 78
FM AMEMBASSY BONN
TO USDOE WASHDC
INFO SECSTATE WASHDC 9325
AMEMBASSY PARIS
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PORTABLE GENERATORS. SEE TOTAL WORLD MARKET AT 700 KW-
1000 KW IN '78; 2000-3000 KW IN '79.

F. ALL FRENCH SOURCES QUESTIONED SAID SOFRETES ON WRONG TRACK, PV WATER PUMPING LOOKS LIKE WAY TO GO. GENERAL COMMENT IS THAT U.S. TECHNOLOGY NOT NEEDED IN LOTEMP SOLAR BUT MAY BE VITAL IN POWER AND PV DEVELOPMENT. ESPECIALLY IN PV EUROPE APPEARS TO HAVE LOST MOST OF ITS ADVANTAGE OF THE 1960'S. THUS POSSIBLE MARKETS FOR U.S. HARDWARE IN FRANCE APPEAR GOOD FOR SPECIALIZED COMPONENTS AND FOR ADVANCED SYSTEMS, WHEREAS MARKET FOR U.S. TECHNOLOGY EXCELLENT ESPECIALLY IN MIXED U.S.-FRENCH JOINT VENTURES ALONG MUCH ADMIRER LIMITED OFFICIAL USE

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SOLAREX/LEROY-SOMER/POMPES GUINARD ACTIVITY.

G. ALTHOUGH PERHAPS EARLY TO MAKE GENERALITIES IT OUR IMPRESSION THAT FRENCH SOLAR INDUSTRY WILL PULL ITSELF TOGETHER SHARPLY IN NEXT COUPLE YEARS, ESPECIALLY TO ADDRESS OVERSEAS MARKET WHICH IT SEES AS VITAL, COMPETITIVE, AND BY FAR LARGER POTENTIAL THAN EUROPEAN INTERNAL MARKET. ONLY IN CASES WHERE FRENCH SEE CLEAR ADVANTAGE WILL THEY COOPERATE WITH U.S. FIRMS (E.G., IF U.S. HELPS FRANCE INCREASE ITS PV PRODUCTION, THUS EMPLOYMENT AND EXPORTS, AT NO RISK). ALSO FRANCE DESPITE INCREASED USE OF COAL TO 50 PERCENT ELECTRO-GENERATING FUEL AND NUCLEAR, NOW IMPORTS 80 PERCENT ITS ENERGY AND DESPITE TO LOWER THIS COST. FRENCH FIRMS WILL GO AFTER LARGEST POSSIBLE EUROPEAN AS WELL AS THIRD WORLD SOLAR MARKET SHARE WITH DETERMINATION AND GOF SUPPORT. ALREADY ACTIVELY SUPPORTED BY GOF THROUGHOUT MID EAST, AFRICA AND LATIN AMERICA. SEE NO SIGNS GOF-SUPPORTED SOLAR MARKETING INTO US/CANADA, PROBABLY BECAUSE FRENCH OIL COMPANIES STILL SITTING ON SOLAR SHELF. BUT SURELY THEY SENSE SIZE OF U.S. MARKET (E.G. WATER PUMPING) AND WE CAN EXPECT THEM SHORTLY. THIS, OF COURSE, GIVES U.S. LEVER TO PROTECT OUR OWN EXPORT THRUST.

H. MARKETING BY U.S. FIRMS IN FRANCE NOT CLEAR BECAUSE IT STILL RANDOM, OFTEN BASED ON TARGETS OPPORTUNITY OR TRADITIONAL TIES/FRIENDSHIPS. ONLY DOZEN OR SO U.S. FIRMS ACTIVE PARTICIPANTS NOW BUT MORE ENTERING PICTURE AS THEIR POLICIES AND FINANCES PERMIT.

I. OUR IMPRESSION IS THAT IT WOULD BE OF DUBIOUS VALUE FOR U.S. TO SEEK EXPORT SOLAR HARDWARE TO FRANCE, LIMITED OFFICIAL USE

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EXCEPT FOR SPECIALIZED HIGH COST LOW ENERGY/MATERIALS
CONTENT COMPONENTS. ON OTHER HAND, WOULD GREATLY
BENEFIT U.S. AND FOR THAT MATTER FRANCE, FOR U.S. TO
EXPORT HIGH QUALITY SOLAR TECHNOLOGY AND TO LICENSE
MANUFACTURE, WHICH BRINGS ANNUAL ROYALTY INCOME AGAINST
NO COST IN IRREPLACEABLE MATERIALS. IF THIS THESIS
IS ACCEPTABLE, THEN TIME TO START IS NOW AND USG HELP
NEEDED FOR SMALL U.S. BUSINESSES WHICH PRODUCE LARGE
PROPORTION SUCH TECHNOLOGY.

7. NATO/CCMS. MEETING AT CCMS/NATO SET UP BY PATRICK
FOLAN WITH J.G. SAMPAS, MICHEL SUDARKIS, DR. HELESY -
AS YET NO STUDIES UNDERTAKEN TO ASSESS MARKET POTENTIAL
OF SOLAR IN EUROPE, BUT EXPRESSED INTEREST IN DOING.
CONCERN EXPRESSED THAT MARKET HEAVILY POLICY DEPENDENT-
HOW MUCH COUNTRIES WILLING TO INVEST IN SOLAR RELATIVE
TO OTHER ENERGY SOURCES. STRONG INTEREST IN THE SERI

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FM AMEMBASSY BONN

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INFO SECSTATE WASHDC 9326

AMEMBASSY PARIS

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DRAFT PROPOSAL ON INTERNATIONAL CONFERENCE ON NON-TECHNICAL ISSUES RELATED TO ACCELERATED SOLAR COMMERCIALIZATION AS A WAY TO INITIATE FURTHER COOPERATION. SUDARKIS EXPRESSED INTEREST IN CCMS HAVING SUCH A MEETING.

8. BELGIUM STILL IN SOLAR INFANCY. SOME UNIVERSITY/GOBR&D, DEMOS, AND A FEW FPC COMPONENT MFGRS. HOWEVER, EFFORT STILL MINOR, EXPECTED TO BE MOSTLY DIRECTED TO SYSTEM DESIGNS FOR MID-EAST AND AFRICA BUILDINGS FOR NEXT FEW YEARS. U.S. FIRMS VIRTUALLY INACTIVE BELGIUM.

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9. GENERAL COMMENTS FRANCE AND BELGIUM:

A. BOTH COUNTRIES LIMITED INTERNAL SOLAR MARKET ALTHOUGH FRENCH NOT INSIGNIFICANT FOR U.S. TECHNOLOGY AND SPECIALIZED COMPONENTS.

B. BOTH COUNTRIES, BY FAR MORE SO FRANCE, IMPORTANT POTENTIAL PARTNERS FOR U.S. FIRMS TO ACCESS LDC'S.

C. U.S. MARKETING LIMITED, NEEDS BOOST ENCOURAGEMENT.

D. STRONG U.S. SOLAR EFFORT WEST EUROPE COULD RESULT SOLID MARKET SHARE HENCE BENEFIT TRADE BALANCE, BUT NOT SIGNIFICANT UNLESS LDC MARKET STIMULATED BY USG. STOESEL

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Locator: TEXT ON-LINE, ON MICROFILM
Message ID: 55d8568b-c288-dd11-92da-001cc4696bcc
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Review Media Identifier:
Review Release Date: N/A
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
SAS ID: 2399715
Secure: OPEN
Status: NATIVE
Subject: REPORT BY INTERNATIONAL SOLAR ENERGY WORKING GROUP PART 1
TAGS: ENRG, TECH, GE
To: COM
Type: TE
vdkgvwkey: odbc://SAS/SAS.dbo.SAS_Docs/55d8568b-c288-dd11-92da-001cc4696bcc
Review Markings:
Sheryl P. Walter
Declassified/Released
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